

R E P O R T R E S U M E S

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USING TELEVISION FOR INDUSTRIAL SUPERVISORY DEVELOPMENT.

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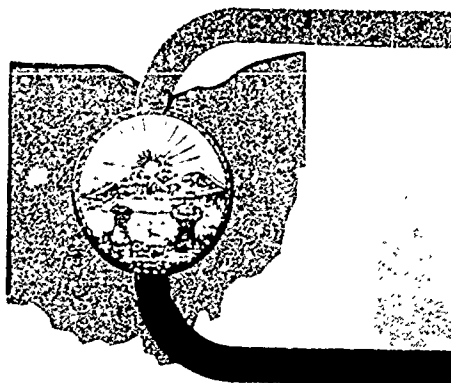
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THE HYPOTHESIS THAT THE MEDIUM OF TELEVISION IS AN EFFECTIVE AND EFFICIENT METHOD OF PROVIDING PROGRAMS FOR SUPERVISORY DEVELOPMENT WAS TESTED. FOR NINE CONSECUTIVE WEDNESDAY EVENINGS, FOUR CLASSES OF FROM 10 TO 16 STUDENTS, SUPPLIED BY THE FOREMAN'S CLUB OF COLUMBUS, ALONG WITH FOUR UNTRAINED AND INEXPERIENCED GROUP LEADERS, WERE GIVEN INSTRUCTION, VIA EDUCATIONAL TELEVISION IN EFFECTIVE SPEAKING. AFTER THE 30-MINUTE PRESENTATION, THE LEADER IN EACH GROUP HANDLED THE CLASS. THE TELEVISION TEACHER HAD TWO ASSISTANTS AND A GUEST FROM EACH OF THE FOUR CLASSES FOR EACH OF HIS DEMONSTRATIONS. PRESENTATION, PARTICIPATION, AND GROUP LEADER EFFECTIVENESS WERE EVALUATED BY THREE JUDGES WHO VISITED EACH GROUP AT LEAST TWICE AND SUBMITTED 28 EVALUATIONS. THE TELEVISION PRESENTATION PHASE RECEIVED 19 EXCELLENT RATINGS, AND THE GROUP PARTICIPATION PHASE RECEIVED 12 EXCELLENT AND 13 GOOD RATINGS. STUDENT OPINIONS FROM PRE- AND POST-COURSE QUESTIONNAIRES SHOWED--(1) 73 PERCENT FELT THE TELEVISION PRESENTATIONS WERE MORE INTERESTING THAN NORMAL PROCEDURES, (2) 88 PERCENT FELT THE TELEVISION INSTRUCTOR WAS MORE COMPETENT THAN THE GROUP LEADERS, (3) 70 PERCENT FELT THAT THE GROUP PROGRESSED FASTER THAN IF TELEVISION HAD NOT BEEN USED, AND (4) 57 PERCENT MISSED THE OPPORTUNITY OF ASKING QUESTIONS DURING THE TELEVISION PRESENTATION. OF THE 58 STUDENTS ENROLLED, ATTENDANCE AVERAGED 66.5 PERCENT. FORTY-TWO RECEIVED COMPLETION CERTIFICATES. IT WAS CONCLUDED THAT THE USE OF TELEVISION HAS REAL POSSIBILITIES IN TRAINING SUPERVISORY PERSONNEL IN INDUSTRY. THIS DOCUMENT IS AVAILABLE FOR 20 CENTS FROM OHIO TRADE AND INDUSTRIAL EDUCATION SERVICE, INSTRUCTIONAL MATERIALS LABORATORY, THE OHIO STATE UNIVERSITY, 1885 NEIL AVENUE, COLUMBUS, OHIO 43210. (MM)

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*Using*

**TELEVISION**

*For Industrial  
Supervisory Development*

DIVISION OF VOCATIONAL EDUCATION, STATE DEPARTMENT OF EDUCATION, COLUMBUS 15, OHIO

VT000776

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
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**USING TELEVISION**  
  
**for**  
  
**INDUSTRIAL SUPERVISORY DEVELOPMENT**

**By The**  
  
**TRADE AND INDUSTRIAL EDUCATION SERVICE**  
  
**Division of Vocational Education**  
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**Columbus, Ohio**



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## ACKNOWLEDGMENTS

September, 1957, marked the starting date of an interesting and enlightening experiment on the part of The Ohio Trade and Industrial Education Service. This brochure serves as a permanent record of the experiment which involved the use of television for industrial supervisory training.

The review and evaluation of the program and procedures described herein are the result of a great deal of co-operative effort on the part of several individuals and organizations. Credit for the experimental program and the leadership for the implementation of the idea is due Carl J. Schaefer, Assistant State Supervisor, Trade and Industrial Education, State Department of Education, and Merle E. Strong, Instructional Materials Consultant, Trade and Industrial Education Services, The Ohio State University. Recognition is also due the Foremen's Club of Columbus, Inc. and its coordinator, Frank M. Albanese, for their co-operation in the experiment and for supplying the necessary enrollment for the class. Richard O. Knight, Director of Industrial Education for the Columbus Public Schools, assisted with facilities and arrangements. Television Station WOSU-TV, of The Ohio State University, provided the telecast time. Many hours of direction and guidance were given by the station's staff personnel which included: Dr. Richard C. Hull, Director; Dr. William H. Ewing, Associate Director for Programming; Dr. Robert G. Holsinger, Program Director; William R. Buccalo, Producer-Director; and David Ayers, Production Supervisor.

Aaron Adams, Leadership Development Consultant, State Trade and Industrial Education Service, who is located at the University of Cincinnati, was selected as the television instructor. Leaders for the groups located in the industries included Robert Pond and S. E. Hare, Jeffrey Mfg. Co.; George Zimmerman, Kimble Glass Co.; Wayne Marion, Linde Division of Union Carbide Corp.; Harold Davis, Federal Glass Co.; and Roy Feltner, Blue Box Co.; all who are members of the Foremen's Club of Columbus, Inc.



John H. Kochensparger, of the Ross-Willoughby Co., acted in the dual-capacity of course coordinator and judge. Other judges included Dr. Robert M. Reese, Director of Trade and Industrial Education Services at The Ohio State University; Dr. Keith I. Tyler, Director of Radio Education at The Ohio State University and the co-producers of the experimental program; Merle E. Strong and Carl J. Schaefer.

Television participants included Paul F. Breitfeller, North American Aviation, Inc., and Louis Finneran, Fairmont Foods.

Recognition of and appreciation for the time and effort expended in the program is extended to all of the above mentioned as well as those who participated in the course. This report has been written by Carl J. Schaefer and Merle E. Strong and duplicated by our Instructional Materials Laboratory. We hope it will help others in experiments with television as an educational medium.

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**Aaron Adams preparing to conduct the Television  
Class in Effective Speaking**



## USING TELEVISION FOR INDUSTRIAL SUPERVISORY DEVELOPMENT

### PURPOSE AND PLAN FOR RESEARCH PROJECT

Television, "The panacea of modern day communications"; "The wonder of the times"; "The eyes and ears of the American family"; such phrases illustrate the awe-inspiring potential of this complex network of magic screens which are relied upon, in the American home, almost as much as the stove and refrigerator.

What is the full impact of this modern means of mass communication? Is it merely a gigantic medium for promotion and salesmanship? Is it to become a means of transforming the nation into a vast theater of entertainment; where all can receive front row seats at balcony prices? Will television have an appreciable effect on the cultural pattern of our population? Will it blossom forth as a medium of mass enlightenment and raise the educational level of the population; to create and satisfy the hunger of acquiring the knowledge and learning for the American Public?

If this medium is left solely to the sales and entertainment field, the educational potentiality of this relatively new discovery will never be realized. The financial interests of the two commercial ventures can easily brush aside experimentation and pioneering of the use of television for educational purposes. This has happened already and it has taken more than five years for educational programs to poke their heads through the expensive and lavish curtains of the television networks. We find the first educational television station has been in existence for a period of only five years as compared to a span of over ten years that the medium has been in mass use.

Fortunately for education, its leaders are beginning to investigate and evaluate the medium of television to see if, and how, this medium can diminish some of the many barriers to learning and knowledge that have plagued modern pedagogy. The following experiment is the result of awakening to the need for a better way of providing supervisory development training as a part of the Ohio Trade and Industrial Education Program.

Through the combined efforts of the Ohio Trade and Industrial Education Service, the Foremen's Club of Columbus, the Columbus Public Schools, The Ohio State University Television Station WOSU-TV, and a number of individuals who are interested in the total program of producing more competent leadership in industry, an attempt was made during the Fall of 1957 to open new horizons of supervisory development through television.

A bold hypothesis was formulated which stated, "The medium of television is an effective and efficient method of providing programs for supervisory development." It was hoped that such an idea, if true, would have a pronounced effect on alleviating the problem of training an estimated 65,000 supervisors within Ohio's industries.

The experimental program, as envisioned, was to be but the first in a series of programs to use the television medium to present such courses as conference leadership, human relations, instructor training, and others. The first or initial experiment was conducted to improve the supervisor's verbal communications by means of a course entitled "Effective Speaking."

During the operation of this effective speaking course, four untrained and inexperienced group leaders sat with their classes as viewers as the television presentation was beamed at them. At the close of the television program, the group leaders then took over actual leadership of the class and directed the participation for the remainder of the period.

A long established principle in supervisory or leadership development is the use of the "Learn-by-doing method", therefore this experiment could not be presented merely as an indoctrination type course. Provisions had to be made to provide an opportunity to practice skills which were demonstrated by the master teacher. To accomplish this, the group leader was made an integral part of the experiment.

Each group leader was given a class ranging in size from ten to sixteen participants. It was his responsibility, although unacquainted with the course, to furnish dynamic leadership throughout the participation phases of each session and to encourage each class member to apply the principles which were presented by the master teacher during the preceding half-hour television program. Four groups totaling fifty-eight enrollees were supplied for the initial experiment by the Foremen's Club of Columbus, in co-opera-



tion with the Columbus Public Schools. The educational television station of The Ohio State University, WOSU-TV, supplied the facilities for televising the instruction to each of the four classes who met in conference rooms of co-operating industries.

The master teacher looked into the faces, via television, of some fifty-eight classroom "guinea pigs" each Wednesday evening for nine consecutive weeks. He was assisted by two regular television participants who helped set the pace for the classroom groups to duplicate. An additional guest television participant was selected from each of the four class groups each week. In this manner, an intimate relationship was established between the class and the television presentation.

The casual audience, who by chance tuned into the program, was satisfied through frequent reference to the fact that there were groups working together to become more effective speakers and the program, to be of benefit to them, would necessitate their enrolling in one of the programs during a future series.

The course, Effective Speaking, published by The Ohio Trade and Industrial Education Service Instructional Materials Laboratory, The Ohio State University, was selected for this pilot study because it had been acclaimed by over one thousand supervisors and foremen as a successful means of attaining desired results. In each of these previous courses the face-to-face or conventional classroom method of presentation was made. Consequently, the number of people who could take the training was limited by the number an instructor could handle during a normal teaching load.

Would the use of television solve this problem and the classroom subsequently be limited only to the radius and power of a television antenna? How effective and efficient would such instruction be? These are questions which could be answered only if definite provisions were made to appraise the results.

### THE EVALUATION PROCEDURE

It was apparent from the beginning of this experiment that unless the pilot group was able to attain an acceptable level of proficiency as effective speakers, that is to say, unless the desired results were achieved, the notion of using television for this pur-

pose would be unsound. Thus, measurement of the effectiveness of the medium of television for the teaching of the course became of prime importance.

The second point to be evaluated became worth measuring only after the attainment of the first goal. If the technique was effective and the participants reached a passable level of attainment, was the method more or less efficient than previous ways of teaching the course? Consequently, ways and means had to be found to appraise the two factors of effectiveness and efficiency.

How Accomplished - The desired result of any participation type course, such as effective speaking, is measurable only in the final outcome of a person's ability to stand on his feet and speak effectively. Thus, an individual may know all the techniques of speech organization and the fine points of effective presentation, but, if he cannot present a talk, he has not become an effective speaker. The desirable level of accomplishment is attained only if the individual develops the ability to overcome nervousness and proves himself an effective speaker through speaking.

An appraisal of this statement cannot be ascertained simply by the administration of a paper and pencil test on concrete information and knowledge. Pure objectivity then becomes impossible as a means of judging the success or failure of the individual. He must be judged subjectively on how well he applies his knowledge to perform as an effective speaker. Consequently, a person or persons qualified in the field of effective speaking must judge the success or failure of the individual. In other words, the student participant is graded as accurately and objectively as possible by an observer. As contradictory as this may sound, a high degree of objectivity may be attained from subjective judgment. It is the only way that many of our skills, especially supervisory skills, can be appraised. To assist in this process, three experienced teachers of the course were enlisted and rotated among the participating groups. Each of these persons had taught the course by means of the conventional face-to-face method and had the background and experience necessary to judge the level of attainment in both the presentation and application phases.

The efficiency factor could be ascertained, of course, by the numerical figuring of the number of personnel involved, the man hours spent in providing the training, and the dollars and cents cost through the conventional versus the television method. Objectivity



in determining efficiency was rather easy.

To assist with the appraisal of the effectiveness of the television technique, three paper instruments were devised.

Pre-Course Questionnaire - The first questionnaire used was called the "Pre-Course Questionnaire." It was intended to record the initial impressions of the persons who volunteered to participate in the experiment. The questions on this instrument pertained to what the enrollees thought the results of using the medium of television would be as far as they were concerned.

Session Evaluation Blank - This instrument was designed for use by the judges. It served to list the common points to be evaluated during the television presentation and the participation phases of each session. This instrument was intended to provide the major measure of effectiveness of the technique.

The Conclusion Questionnaire - This instrument attempted to record the final impressions of the students after taking the course. The questions were identical to those on the Pre-Course Questionnaire except they were asked in the past tense.

Other items used to support the findings of this experiment included the following:

- |                         |   |
|-------------------------|---|
| Attendance Record       | - a record of attendance for the group.   |
| Follow-Up Card          | - a card sent out to follow up those who registered, but who either did not show up or missed the second session of the course. |
| Group Leader's Comments | - reports from the group leaders regarding their experience, evaluation, and ways of improving the course.                      |

### SUMMARY AND INTERPRETATION OF EVALUATION

The following interpretations were made from the summaries

of the recorded opinions listed on the questionnaire, session evaluation blanks, attendance record, and group leader's observation forms. The hypothesis, as stated in the initial section of this report will be concluded in two parts, effectiveness and efficiency, with each being treated separately.

Effectiveness - The evidence presents overwhelming proof as to the effectiveness of the method used.

The judges, who were charged with the independent evaluations, rotated weekly from group to group. Since there were four groups and usually only three judges, this meant that each group was visited at least twice. By a pre-arranged schedule, these visitations were spread at least four weeks apart which presented a good opportunity to see advancement and growth within the group.

The Session Evaluation Blanks, totaling twenty-eight and representing independent evaluation by judges, indicate both the presentation and participation phases of the course were effective and above average in comparison with sessions conducted on a face-to-face basis. The presentations over television were rated exceptionally high on all points and the over-all evaluation of this phase indicated nineteen excellent, eight good and only one fair out of the twenty-eight ratings. The over-all participation phase of the group, including the group leader, received twelve excellent, thirteen good, and no fair out of twenty-five ratings. Evidence points to some individual difference in group leaders, especially as to their ability to handle critiques.

Effectiveness of the course is further established by review of the Pre-Course and the Conclusion Questionnaires. Information from these questionnaires substantiated several pre-notions of the course participants. For example:

1. 73% completed the course with the opinion that it was more interesting than it would have been if it were conducted entirely by their group leader.
2. 69% expressed the notion that it was easier to understand than it would have been without the help of television and the master-teacher.
3. 88% were of the opinion that the television instructor was more of an expert than their group leader.
4. 66% expressed the feeling that the use of television made the course less formal than it would have been if only the face-to-face method of instruction had been used.



5. 70% felt the group actually progressed faster than it would have if the medium of television had not been used.
6. 66% of the group were of the opinion that the results were better than if each group leader had presented the course in its entirety.
7. 63% of the participants expressed the feeling that the television medium made them more enthusiastic.
8. 57% of the group indicated they missed the opportunity of asking questions of the instructor since television does not provide for two-way communications.

Seventy per cent of the total group liked the idea of the course being presented over television. This is compared to 85 per cent who thought they would like the idea before the course started. Some of this decline is accounted for by the fact that the 13 per cent who didn't particularly care one way or the other prior to the start of the course and 15 per cent preferred to express no opinion after the course was completed. In other words, an additional 2 per cent became passive about the idea and were neither for it nor against it.

Most adult educators look upon the attendance record as a good thermometer of class success. This is especially true where adults have little or no money invested in the course. Investment then becomes only a matter of time and if the course is worthwhile, this will be reflected in a good percentage of attendance.

In reviewing the attendance record it should be remembered that all who registered (a total of 58) were considered enrolled. Of this number, there was an average attendance of thirty-eight and six tenths or 66.5 per cent. Forty-two received certificates of completion, a total of 72.4 per cent.

Nine persons who registered, however, came to class only once. These persons might be classified as curiosity seekers, or individuals who wanted to see what it was all about with no real intent to take part. There were also those who unfortunately were unexpectedly confronted with a change of working hours or unusual problems at home, and had to drop the course. An attempt was made to check on these and other persons who registered for the course but did not enroll and attend classes. Out of twelve returns, three who registered indicated they were dropping out due to work

conflict or personal reasons. Five indicated they would be continuing the course although they had to miss the first two meetings, and the remaining four said they did not intend to enroll although they had registered for the course.

Assuming, then, that the course itself was not the reason for at least three of these nine persons who did not appear at the first class, the average attendance would be increased to 70.2 per cent and the number receiving certificates, 76.4 per cent. Nevertheless, both of the figures fall somewhat short of those usually experienced by the Foremen's Club classes. Last year the Foremen's Club had an average attendance of 70.9 per cent for their thirty-nine classes and 82.7 per cent of the enrollment completed the courses and were certificated. Their experience with a similar effective speaking course, using face-to-face instruction, resulted in an average attendance of 69.9 per cent for seven sections and 70.4 per cent of the enrollment completed the course and were certificated. In other words, a difference of 3 per cent for attendance in favor of the face-to-face method and 2 per cent for certificates in favor of the television method. This latter factor is quite variable, however, as certification was left up to the judgment of the individual instructor or group leader; a policy established by the Foremen's Club.

#### CONCLUDING STATEMENT

Participation in the presentation of the effective speaking course, by use of the medium of television, has been a very gratifying and educational experience. The experiment has proved that supervisory training by use of television, in the opinion of those involved, has very real possibilities for the training of supervisory personnel. Further experimentation is needed, however, before definite conclusions may be reached.

It is hoped that additional experimental programs in supervisory training will be conducted, by the use of television, using different types of courses and different techniques. The real value of this initial experiment can be measured only by the contribution it makes to future experimentation and use of television in supervisory training.